

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of )  
Gino PALUMBO, et al. ) Group Art Unit: 1795  
Patent Application No.: 10/516,300 ) Examiner: W. T. Leader  
Filed: December 9, 2004 ) Confirmation No.: 5590  
For: PROCESS FOR ELECTROPLATING ) Attorney Dkt No.: BROO3001/ESS  
METALLIC AND METALL MATRIX )  
COMPOSITE FOILS, COATINGS AND )  
MICROCOMPONENTS )

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Claims 1-8, 10-12, 15, 17, 27, 31, 33 and 34 are rejected under 35 U.S.C. 103 (a) over Erb et al. (5,433,797) in view of Lowenheim (Electroplating text) in view of Biberbach et al. (3,929,595) and Gonzalez et al. (6,743,346).

Claims 16, 18-25 and 35 are rejected under 35 U.S.C. 103 (a) over Erb et al. plus Lowenheim, Biberbach et al, Gonzalez, plus admitted prior art.

Claims 13 and 14 are rejected under 35 U.S.C. 103 (a) in view of Erb et al, Lowenheim, Biberbach et al., Gonzalez et al, plus Uzoh et al. (7,378,004).

Claim 26 is rejected under 35 U.S.C. 103 (a) over Erb et al., Lowenheim, Biberbach et al, admitted prior art, plus Hutkin (4,088,544).

Claims 1, 30 and 31 are the only independent claims.

The determinative issue in each case (claims 1, 31, 33) is whether the prior art teaches per cathode or per anode area agitation rate to deposit nanocrystalline metallic material i.e. agitation rate normalized to electrode area (present in each of claim. 1, 31 and 33) and if not if this is the same as agitation rate/bath stirring without reference to the size of the electrode area.

The U.S.P.T.O has not pointed to any prior art which explicitly teaches per electrode area agitation rate but takes the position that this is the same as agitation rate without reference to anode or cathode area. On its face, this is wrong. In the case of the claims, the limitation is agitation rate divided by electrode area. In the USPTO position the "divided by" is ignored.

No basis is given for the U.S.P.T.O position on the technical issue as to whether per electrode area agitation rate is the same as general agitation rate, i.e., stirring to remove concentration gradients in the electrolyte and expressed, e.g., in liters per minute. The U.S.P.T.O says it doesn't need basis since the prior art agitation rate is obviously the same as the claim per electrode area agitation rate. But as indicated in the above paragraph, this is incorrect.

As evidence of its position on this technical point, applicant points to the EPO, German Patent Office and Canadian Intellectual Property Office as accepting its technical position. The USPTO points out that it need not accept the foreign office position on patentability. This misses the point. The other patent offices' results are relied on for evidence that applicant's technical position is correct (so much of the world agrees with applicant's technical position) and the U.S.P.T.O has been able to point to no extrinsic support for its technical position.

At one point the USPTO seemed to be arguing that the claimed normalized agitation rate is provided by a high agitation rate without reference to electrode area. This position is now conceded by the USPTO to be wrong.

Applicant has pointed out that Lowenheim with high agitation has not stated he gets nanocrystalline structure. The U.S.P.T.O says maybe he does. This misses the point. If Lowenheim said he got nanocrystalline microstructure instead of being silent on this, this might be evidentiary support for the USPTO's unsupported position.

Lowenheim applies stirring to prevent concentration gradients in the liquid electrolyte and not to control the microstructure of the deposit. Lowenheim's agitation deals with electrolyte uniformity and does not consider any implications of electrode size.

Similarly, paragraph 8 of Prof. Erb's declaration of June 24, 2009 (submitted to the USPTO on 7/1/09) states that the stirring of Erb is different from the agitation rate normalized to electrode area as claimed.

There is evidentiary support for applicant's position and only ipse dixit to support the USPTO technical position.

Therefore the rejections of the claims should be reversed and withdrawn and the applied be allowed.

Respectfully submitted,

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